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Making a Difference: Implementing the eprints mandate at QUT

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Abstract

Classification: Case study

Purpose;
The purpose of this article is to describe the impact of a university-wide deposit mandate on the self-archiving practices of academics and to show how a mandate can make a positive difference.

Methodology/Approach;
The article explains the genesis of the eprints mandate at QUT and outlines the response of the academics to the endorsement of the policy. The implementation of the mandate is then examined in detail including discussion and evaluation of specific implementation strategies and practices.

Findings;
The experience of Queensland University of Technology suggests that a university-wide eprints mandate definitely increases the rate of self-archiving. Cultural and organisation change takes time, even with a mandate. Advocacy initiatives and implementation strategies have to be aligned with current skills and needs of the researchers. For a self-deposit system to be successful, the barriers need to be as low as possible.

Practical implications
Institutional repository administrators should consider creating a scaffolded deposit system that is fast, intuitive and requires only basic technology skills. The efforts of early adopters should be recognised as publicly as possible. Evidence of success is the best form of persuasion.

Keywords:
Open access; Self-archiving; mandate; Eprints; Institutional repository; QUT

Making a Difference: Implementing the eprints mandate at QUT

Queensland University of Technology (QUT) in Brisbane, Australia, is one of Australia's largest universities with 40,000 students and 3,500 staff. It had its antecedents in an institute of technology in which the main disciplines were science, engineering, information technology, architecture, design, health sciences, business and law. As it grew, large discipline groupings in education, justice studies, human services, humanities and, later, creative industries were added. This discipline profile meant that library investment was significantly skewed towards science and technology, and within that, a heavy proportion of the expenditure was on the periodical literature. It is well documented that these areas showed some of the highest inflation rates in terms of procurement cost for university use. For Australian universities, this problem was exacerbated by exchange rate issues between Australia and its main sources scholarly material; Europe and North America.

Being a university of technology, QUT has always been keen to support the development of pervasive and convenient digitally-based services to its students and staff. It saw, in the rise of opportunities in the digital age, a chance to greatly improve the reach of its own academic staff and researchers as they strived to achieve "stretch" targets to improve their own research output. In recent years QUT research has grown (by one measure, research income) at 25% per year.

Early in the development of these digital opportunities, there was considerable speculation in the relevant literature about the breakdown of journal formats, about scholarly communication transactions being developed at the article level and about much greater sharing of scholarly work at an earlier stage in its gestation (Smith, 1999). But any system-wide investigation of the possibilities always foundered on the rocks of vaguely formulated copyright questions and challenges. At the same time, there was an emergence of evidence indicating that some academic journal publishers were moving to new business models (Gannon, 2000). All this has been amply documented in the literature.

Developing a mandating policy

At QUT, as a result of these general influences, considerable attention was being paid to a rising debate led by research communities about the need for better access and availability of research outputs at either discipline or institutional levels. Early work in North America and the UK in particular was tracked with great interest (Harnad, 2000).

By 2002, the maturity of the discussion globally, and the development of practical approaches to institutional repositories focussed on research output, had reached a stage where the debate could be taken into various academic and research groups within QUT. To the proposition that QUT might develop an institutional server, and that the institution should develop a policy of requiring deposit, there was surprisingly little resistance. In many cases, academic authors were already putting PDF versions of their own material on their personal websites. In other cases, notably the Faculty of Science, the general mission of providing better access to our institution's output had general approval. In terms of policy support, significant senior officers within the University were comfortable with the development of a proposal.

Accordingly, a policy process was taken through University Research Committee and subsequently endorsed at University Academic Board in September 2003 ("E-print

repository for research output at QUT," 2003). The mandate was thus now a part of University governance. The next question was how to actually advance this mandate in a way which would foster cooperation and was aligned with the interests of researchers and academics. This meant not using the mandate as a blunt instrument, but instead finding a way to support the process.

Implementation

In June 2003, while the mandate was being discussed and debated, funding was allocated for the appointment of an appropriately skilled person, a significant proportion of whose time could be dedicated to the task of developing the actual activity of populating an eprint server at QUT. A project officer was appointed and work commenced immediately on the installation of repository software (EPrints). A reference group, which included researchers, librarians and a representative from the University's Office of Research, was consulted at various times during early stages of the project and, as a result, a few changes were made to the default configuration of the metadata fields to accommodate perceived local needs. For example, the default LCSH subject-heading list was replaced with the Australian Standard Research Classification (ASRC) codes (Australian Bureau of Statistics, 1998). These codes are used by Australian researchers to classify their work when reporting their outputs to the government as part of the annual Higher Education Research Data Collection (HERDC). As this was to be a 'self-deposit' system, it seemed appropriate to use a classification system with which the researchers would be familiar.

The repository was given a name, QUT ePrints, and launched at a formal event in November 2003. Personalised invitations were sent to all Deans of Faculty, Directors of Research Centres, Heads of School and high-profile researchers. Brochures promoting QUT ePrints were distributed widely across the University and articles about the benefits of open access were published in the campus media.

Needless to say, the repository was not immediately inundated with deposits so, in order to gather some initial content for the repository, the QUT web-site was scanned for sources of "low-hanging fruit". This turned up a series of working papers and a number of conference papers. After contacting the authors for permission, these papers were deposited by the Project Officer. The authors were all very happy for their work to be included in the repository, especially if someone else was depositing it for them. While this was a useful start, it was not the prime target material; peer reviewed journal articles.

The QUT Office of Research was happy to work collaboratively with the Library and provided a spreadsheet containing details of all peer reviewed journal articles and conference papers authored by QUT researchers in the previous two years. The information was drawn from a database maintained for the annual HERDC reports. By sorting the spreadsheets by author, it was possible to identify the researchers who published most frequently. Emails were sent to these researchers, explaining the rationale for self-archiving, gently reminding them that it was now University policy that copies of their publications should be located in QUT ePrints and inviting them to attend one of the regular workshops that were being run to help researchers learn how to deposit their papers. Some responded by asking for more information, others agreed that it sounded like a great concept and most promised to deposit their papers as soon as they had some time. Unfortunately, very few followed through and actually deposited the papers.

Regular information sessions and workshops were included in the Library's calendar of information literacy classes but most workshop attendees were postgraduate students who were enthusiastic about the concept but often had no publications to deposit. It was clear that, without some gentle pressure from above, it would be a long time before self-archiving would spread beyond a handful of enthusiastic early-adopters.

It was time to play the "policy card". Emails were sent to all Heads of School (academic departments) asking if they would like a speaker from the Library to come to their next staff meeting to explain "the implications of the new eprint repository policy". By mentioning the policy, it resulted in much higher acceptance rate than would have been the case for an offer to come and talk about a new library service. In the week following each presentation, the Project Officer and the relevant Faculty liaison librarian would arrange a hands-on deposit workshop for the group. These group-specific workshops were significantly better attended than the earlier general sessions had been Administrative assistants from the academic departments were also invited to attend the workshops so they could become a local source of advice and expertise.

Some academic departments employed research assistants to help with the deposit of publications. It is highly unlikely that this would have happened in the absence of the mandate. By the end of the first twelve months, 425 documents had been deposited in the repository but still only a small proportion had been deposited by the authors themselves. Further investigation was needed to identify the factors inhibiting the uptake of self-archiving.

A series of phone calls and meetings with some of the researchers who had not followed through on their stated intentions to deposit their publications provided the Project Officer with some answers. Lack of time was the reason given most frequently. However, other factors generally emerged from these discussions. Chief amongst them was the fact that they had found the deposit process to be quite complex and time consuming.

At this time, the researchers were asked to deposit the postprint (manuscript) version of their work as a PDF file. Detailed instructions had been provided on how to convert MS Word documents to PDF but this, it seemed, only added to the perceived complexity. Most of the researchers also expressed serious concerns about the copyright issues associated with self-archiving. What would be the consequences if they got it wrong? Some researchers had established good relationships with the editors of their preferred journals and did not want to jeopardize their good standing. At this time, the deposit guide advised the researchers that they should check their publisher's policy on self-archiving by reading the terms in the publication agreement they had signed or by consulting the SHERPA (http://www.sherpa.ac.uk/romeo.php) list of publisher policies. This had seemed like sensible advice at the time but it was perceived as a major hurdle by most researchers.

When discussing open access, the researchers readily agreed that, in principle, the entire corpus of peer-reviewed literature should be accessible to all would-be readers, not just those who could afford to pay for it. However, as they did not personally experience any difficulty accessing the literature they needed, perhaps the message did not resonate with them. On reflection, it became clear that focus of the message should have been about how self-archiving would be beneficial to their research projects and to them personally and professionally. That is, by self-archiving they would be increasing the visibility and accessibility of their work and

that this would maximise the impact of their research (as measured by citations); it could also save them time and possibly lead to new networking opportunities.

Taking on board the information gleaned from these discussions, new strategies were devised to change the self-archiving experience into one that would be less time-consuming and more useful to the researchers. The first step was to simplify the deposit process by accepting files in MS Word format. The Library incorporated the file conversion into the document review process.

The next step was to alleviate the widespread anxiety about copyright by announcing that the Library would manage the rights-checking for all journal articles and would enable a level of access consistent with the publisher's stance on the dissemination of the postprint version by authors. Checking the publisher's policy on the SHERPA list during the metadata review stage only took a couple of extra minutes. Where the publisher's policy is unknown, the Library sends an email to the publisher (or editor) requesting information about the rights retained by authors in their standard publication agreement. The same email also requests permission to include the work in QUT ePrints in case it turns out that all rights are retained by the publisher. A number of email templates were created for this purpose to minimise the workload. The information received is recorded in a database for future use.

Where the publisher requires an embargo period to be observed, this is managed by the Library. Where open access cannot be enabled immediately, access to the full-text manuscript file is blocked by the Library but the metadata is still accessible. The link in the eprint record to the journal or the publisher's web-site will still facilitate access to the paper. The eprint record also provides author contact details.

The aggregation of records created by the "Browse by person" feature in the repository software was promoted to QUT researchers as a means of creating a "personal showcase" for their publications. It was suggested that they should consider including the URL for this page into their email signature. If anyone emailed them for a copy of a paper, they could simply direct the requester to the link. This would save time and would expose the requester to other papers that may also be of interest. By 'book-marking' their own eprints page, they would also have ready access to their manuscript files and, in most cases, access to the published versions of these documents via the links to the journals.

Finally, to provide additional positive reinforcement, a download statistics feature was added to the QUT ePrints website. The scripts for this feature were developed by Kingsley Gurney, a colleague from the University of Queensland. This enhancement has been a very popular with the researchers.

Embedding self-archiving into research workflows

Some of the researchers with prolific publishing outputs, who had been emailed earlier, were now visited by the Project Officer and shown the simplified deposit process. Knowing that it must be difficult to track all their publications for the once-a-year HERDC report, it was suggested that self-archiving the manuscripts to QUT ePrints, as soon as they were accepted for publication, could help them to manage this information efficiently.

One of the researchers visited at this time, Professor Ray Frost from the School of Physical and Chemical Sciences, now deposits 4-5 new papers each month. The twelve month download count for his papers is now in excess of 25,000. Consequently, Professor Frost is now an enthusiastic advocate for the repository and

has encouraged many of his colleagues and all of his postgraduate students to take advantage of the eprints-edge. When a researcher's download total reaches a major 'milestone' (eg 10,000), a congratulatory email is sent to the relevant Faculty mailing list (which will include the researcher's supervisor). This is an effective promotional strategy as it captures attention and often results in a flurry of enquiries.

Reference to the eprint policy has been embedded into a number of research reporting processes at QUT. For example, in the guidelines for the Teaching & Learning Development Small Grant Scheme, applicants are advised that all publications arising from grant projects must be deposited in the eprint repository in accordance with University policy. This promotes awareness of the eprint policy and encourages academics to regard self-archiving as part of normal research practice.

Public policy commentary

In October 2006 a report to the Australian government released findings that up to $628 million a year in economic and social benefits to the nation might be realised by moving to having research results freely available in Australia. This was reported in *The Australian,* (Lane, 2006). The same article continued with a particular mention of the QUT mandate, and included a quote from Professor Ray Frost.

> "Ray Frost, from QUT's school of physical and chemical sciences, said the ePrints repository gave him a new global readership. His papers were downloaded on average 2080 times a month" (Lane, 2006p21)

Public attention to these innovations seems to be increasing. There is significant emphasis in some jurisdictions in Australia, and elsewhere, on the argument that publicly funded research must be freely available wherever possible. QUT's experience has confirmed that our researchers get greater visibility, and clearly in consequence, some greater degree of impact, and that their research is simply more accessible.

Future plans

The SHERPA List of publisher policies is an invaluable tool, used internationally to facilitate rights-checking. If standard copyright licences that reserve some rights were to become the norm, this step could become unnecessary. However, in the meantime, there is a need for more information about the current policies of Australasian publishers. Fortunately, The Open Access to Knowledge (OAK) law project, which is based at QUT, has recently received a grant from the Australian Government to study publication agreements used by Australian researchers. The proposed 'OAK List' will be complied in association with the UK-based SHERPA Project. The OAK project team will also be investigating new forms of publication agreements designed to facilitate open access to research articles. The recently released OAK Law Project Report provides more details of the proposed objectives (Fitzgerald, Fitzgerald, Perry, Kiel-Chisholm, Driscoll, Thampapillai and Coates, 2006). QUT Library will be an active participant in this phase of the OAK law project; with two new project staff located within the Library. The OAK project staff will be consulting with Australian eprint repository coordinators and other relevant stakeholders.

The QUT eprint repository, QUT ePrints, will soon be moving to the ARROW repository platform; a combination of Fedora database software with VITAL as the interface layer. Once the ARROW software is in place, QUT Library will develop and implement new services related to the storage and dissemination of a wider range of

digital objects. However, the original vision, the greater reach of and access to, QUT research will remain an undiluted continuing objective.

Conclusions

Having a mandate that has been implemented sensitively plus a simple, low-stress deposit process has proved to be a winning combination for QUT. The deposit rate increased significantly in the second and third years of operation and there are now nearly 4000 items in the repository. The vast majority (nearly 90%) include a full-text document that is openly accessible and, for many of the others, open access will be enabled once the publisher-requested embargo period has elapsed. The best indicator of the success of the QUT strategy is the proportion of the institution's publication output that is being self-archived. In 2005, QUT researchers published approximately 1200 peer reviewed journal articles and conference papers. So far, 637 of these have been deposited in QUT ePrints by the authors; a "capture" rate of over 50%. This figure is likely to rise because 2005 publications being still being deposited at the time of writing (October 2006).

The mandate has been instrumental in this success and, to date, it has not met with any fierce resistance. The story may have been different had the policy been wielded as a stick with explicit penalties for non-compliance from the beginning. Instead it has been used as a gentle lever to encourage participation. By making it a policy, the University sends the message that self-archiving is a worthwhile and valued practice that deserves to be a high priority. Once researchers begin experiencing the many benefits that flow from having their work in an open access repository, they tend to become enthusiastic participants. It is QUT's experience that having a policy can certainly make a difference in terms of getting researchers to take the first step.

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